

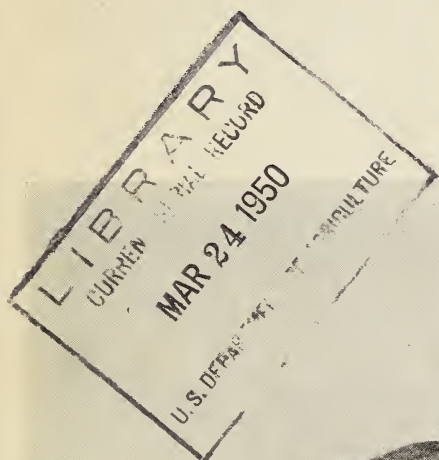
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# Chinchilla

# Raising



LEAFLET

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U. S. DEPARTMENT OF AGRICULTURE

## CHINCHILLA RAISING

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The chinchilla is native to South America. In the early part of the twentieth century skins of this animal were shipped into the United States by the bale. Apparently trapping in the wild reduced the numbers so drastically that by 1920 the skins were bringing as much as \$100 apiece. Before the South American countries had passed laws prohibiting the exportation of live chinchillas, or their pelts, a United States mining engineer in Chile in 1923 shipped out 11 animals, which became the foundation stock for chinchilla farming in this country. Release was obtained for making additional shipments from South America. It is estimated that there are now 60,000 chinchillas distributed in the United States and the Territories of Alaska and Hawaii. These animals are being raised primarily for sale as breeding stock.

Stability in raising chinchillas will be attained only when a market has been established for the pelts. Just when that will be is problematical, but the National Chinchilla Breeders' Association is working toward this goal. Other livestock developments underwent a formative period. Through experimentation, breeders have developed fairly satisfactory methods of management in feeding, breeding, and housing.

Experimental work on chinchillas by the Federal Government has been too limited to serve as a complete source of information for raising these animals in captivity. The suggestions in this leaflet were obtained from successful breeders.

### DESCRIPTION

The chinchilla (*Chinchilla laniger* and other species) is a small ground rodent somewhat resembling the common squirrel, but its body is rounder and not so long. The tail is about half as long as the body and is not so bushy as that of the squirrel. The long whiskers move constantly. Occasionally the animal makes a slight noise.

Chinchillas sleep during the day and play at night. Their hind legs are made for jumping or hopping and enable them to propel themselves with exceedingly quick movements. The fore paw is small, with five fingers and a thumb, and may be used as a hand for holding food and conveying it to the mouth.

The various species differ somewhat as to length and size of ear, length of tail, and general conformation and size of body. Individuals weigh from 13 to 16 ounces at 6 months and from 18 to 35 ounces at maturity. The female is slightly larger than the male. The fur of the most desirable animals is 1 to 1½ inches long and is very soft, fine, and silky. The surface color is grey with a deep blue grey underfur; the belly is white. The chinchilla has only a faint odor.

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## GETTING A START

Only good, thrifty animals of a prolific strain having the desired characteristics should be considered for the foundation stock. Chinchillas identified by tattoo marks in the ears and by written statements as to ancestry, grading, and show winnings, if any, are preferable. The records will prevent future misunderstanding. Breeding stock should be purchased from a reputable breeder who is recognized by the National Chinchilla Breeders' Association.

The Department of Agriculture does not vouch for the integrity or financial standing of any individual or concern, nor does it pass judgment upon the soundness of any transaction or the quality of stock to be purchased. A list of chinchilla breeders is not maintained by the Government. For information on associations, breeders, prices of animals, and similar matters, prospective purchasers should write to the National Chinchilla Breeders of America, Inc., P. O. Box 1806, Salt Lake City, Utah.

## HOUSING

Many small groups of chinchillas are kept in basements of homes. These places, when kept dry and free from drafts, though well ventilated, usually prove satisfactory. Larger colonies are kept in buildings of various kinds, some air-conditioned and heated. Climate is a determining factor in the type of housing required. Chinchillas suffer in prolonged heat of 90° to 100° F., but apparently they are not affected by freezing weather except at littering time. About 70° is considered the ideal temperature, though colder weather is desirable for animals to be pelted. A certain amount of sunlight is also desirable, particularly for sanitary purposes. Chinchillas should be protected from disturbances by dogs and other animals and, of course, from theft.

## PENS AND NEST BOXES

A large variety of pens and nest boxes have been used (fig. 1), some of them rather elaborate. The present trend is for simplification and accessibility. Small all-metal pens, or combination wood-and-wire pens similar to those for minks and rabbits, are becoming more popular. These pens are accessible to the caretaker from the alleyway. The wooden framework should be on the outside to keep the animals from gnawing it. Raised wire floors of hardware cloth having 3 or 4 meshes to the inch are commonly used. Some breeders report that hardware-cloth floors become contaminated and require a thorough cleaning at frequent intervals. About 9 square feet of floor space per animal is considered adequate.

In hot climates, larger concrete-floored pens are preferred by some breeders. A covering of sand or shavings is spread over the floors. Platforms are frequently provided to give the animal a resting place and a means of exercise.

Though wire-floored nest boxes are being used, the preference seems to be for solid floors, some of which are hinged. Bedding of shavings or straw is used with this type. Nest boxes are usually 10 to 12 inches square and 15 or more inches deep and are provided with a lid. It is advisable to have the removable nest boxes attached to the outside of the pen to give the caretaker ready access to the animals without entering the pen.



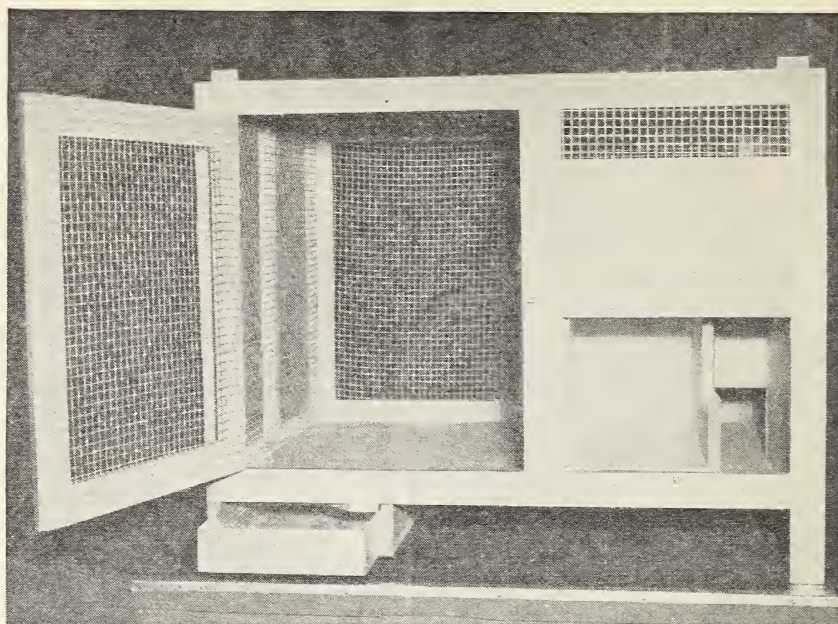


FIGURE 1.—Combination pen and nest box made of wood and hardware cloth.

Several companies make pens and other equipment for chinchillas. Information on them can be obtained from trade journals or the associations.

### OTHER EQUIPMENT

A rack should be provided for hay; it becomes contaminated if thrown on the floor. A dish, trough, or self-feeder of a type the animals cannot easily contaminate is needed in feeding grain or pellets. The animals may be watered from dishes or from inverted bottles like those used in a small-animal laboratory. A rectangular box about 12 by 15 inches or a round pan 6 inches deep in which the animals can roll and dust themselves is essential. All edges should be smooth. Metal cans or ratproof bins in which to store feed so rats and mice cannot get at it are necessary. Scales that weigh accurately to ounces or fractions of ounces may be used to keep the breeder informed on the progress he is making with his methods of breeding and feeding.

### BREEDING

Chinchillas will breed when from 6 to 8 months old, depending largely upon the rapidity of their growth. Though adults mate more readily in late November and December and in late March, young have been produced in every month of the year. Pair mating is usually practiced and should be followed by the inexperienced breeder, as it is difficult for the beginner to determine when the female is ready to breed. Polygamous breeding has the advantages of distributing the influence of an exceptional male throughout the herd and of reducing the number of males needed.

It was formerly believed that chinchillas had to be pair-mated, but

in recent years polygamous mating has been more commonly practiced except on some of the large ranches. Pair mating is facilitated if the animals are placed in a pen new to both.

In pair mating the male is left continuously with the female except when the litter comes. The female may fight the male at this time. A box-like retreat in the pen, where the male can take refuge, may solve the difficulty. If the male must be removed he can be returned a few hours after the litter arrives.

A "stopper" or "plug"—gelatinous and one-half to 1½ inches long—in the pen indicates that breeding has taken place. A record should be made that the litter is expected 111 days from this time. The female will usually rebreed within a few days after whelping in the spring and occasionally after producing a summer litter. From one to three young are produced in each litter. A general average of two young a year for all females kept is considered good production. The young at birth have their eyes open, are fully covered with fur, and weigh from one-half to three-fourths ounce. At the weaning age of 2 months the animals weigh 8 to 9 ounces.

### FEEDING

Chinchillas usually feed early in the evening and during the night. Their ration should not contain more than 15 to 20 percent protein. This protein level can be attained by feeding mixed grains (oats, barley, wheat) four parts, and one part of protein pellets of some type, such as soybean meal or peanut meal, with good-quality bright green alfalfa hay. The grains may be whole or rolled, but finely ground feeds are objectionable. The same protein level can be obtained by feeding a reliable brand of pellets, containing from 22 to 25 percent protein, and timothy hay. A little succulent green feed, such as dandelion leaves, lawn clippings, weeds, and garden trimmings, is beneficial. The animals should be given increased amounts gradually. Dried fruits in limited amounts are greatly relished, as are a few small branches or twigs. Some breeders supply salt spoons. This feed should provide all the necessary vitamins and minerals if good, wholesome products are used. Chinchillas may be fed the concentrated part of the ration in the evening, about 1 ounce, or a heaping tablespoonful, per animal.

The animals should not be overfed, but females suckling young need more than others. It is a good plan to feed chinchillas according to their individual characteristics. Feed should not be thrown on the floor of the pen, but should be placed in containers where it cannot become easily contaminated. A plentiful supply of fresh water should be constantly available to the animals.

### CARE AND MANAGEMENT

A breeder who knows his animals individually and keeps each one in good shape gets best results. This requires regular daily inspection by an observant person. Frequent use of a pair of scales is a good way to check the condition of animals. If an animal is listless and the cause cannot be determined immediately, a veterinarian should be called. Sometimes the teeth do not contact properly and become unevenly worn; the animal may then be unable to eat properly. Filing the teeth gives temporary relief. A tendency toward this condition,



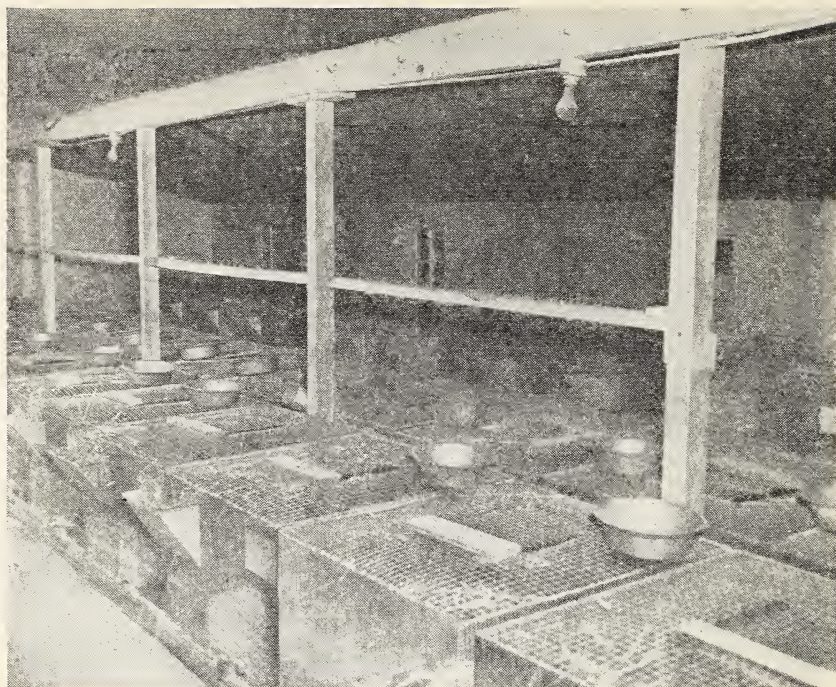


FIGURE 2.—Chinchilla cages with dusting pan on top.

which is known as malocclusion, may be inherited in chinchillas as it is in rabbits. Elimination of the strain that produces animals with this condition is advisable.

Premises and pens should be kept strictly sanitary. Chinchillas like to dust themselves. They should have a pan or box containing very fine sand and pulverized clay or gumbo earth (fig. 2). Fuller's earth is frequently used. The pans are placed in the pen for about an hour each morning.

Formerly it was customary to provide an individual electric heating element for each nest box when the litter was expected. Many chinchilla raisers now prefer to keep the entire room at a temperature of 70° to 75° F. at this time. A special maternity room for use in cold weather might be desirable on large ranches. About 3 inches of bedding is placed in the nest box with a solid floor. Newborn chinchillas must not be subjected to the slightest draft. At other times chinchillas are content at temperatures only slightly above freezing.

During the first few days after they are born, chinchillas should be carefully observed to make sure they are well nourished. It is well also to examine the mother to see if her nipples are sore or have been bitten, and whether the young are taking all the milk.

Orphan young or those needing supplemental feeding can be fed, by means of a medicine dropper, warmed evaporated milk diluted with an equal amount of water. A 2-hour schedule should be maintained for the first few days, and the interval gradually lengthened, depending upon how well the young are progressing.

Good records are essential in any successful livestock enterprise.



A simple yet comprehensive breeding record card for each female will give system to record keeping. The card should provide space for recording the time of mating, male number, date of littering, number of young, tattoo number, remarks, and possibly other information. It is well to provide a place for listing the grading of each individual. A card for recording the breeding of the male is also desirable. Satisfactory breeding cards are sometimes obtainable from associations or supply houses.

Each chinchilla should have an identification number tattooed in an ear. It is best to do this shortly before weaning time. Tattooing instruments may be procured from small-animal supply houses.

Many chinchillas chew the fur on other animals, or their own. The Department had determined experimentally that fur chewing in rabbits could be largely eliminated by supplying roughage and raising the protein level of the rations. A few chinchillas on test for a year gave no indication that the type of rations being fed was a factor in this fur-chewing habit. The use of a combination underground and above-ground pen partially reduced fur chewing but did not eliminate it entirely. More research is necessary to solve this problem.

### FUR CHARACTERISTICS

The fur of the chinchilla is very fine and silky. It is not a hard-wearing utility fur. Close examination shows that a fur tuft composed of numerous fine fibers usually comes from one hair follicle. Less numerous coarser individual fibers come from some follicles. Chinchilla fur stands at right angles to the pelt, rather than at a slant as do most other furs. Chinchilla fur has a definite white banded effect that can best be seen by blowing it gently. The tips of the fibers are black, giving a veiled effect. The general appearance of the fur is grey with a deep blue-grey underfur. A mottled appearance is undesirable. Clearness of color is essential for good pelts. The color may vary from pale to dark. Medium dark seems to be most desirable at present. Chinchilla shows are excellent places to obtain current information on the best types of animal to breed.

Though at present practically all animals are being sold for breeding purposes, a sound basis for chinchilla raising depends upon a satisfactory commercial market for the pelts. With increased production the prices for live animals may become less and purchasers may insist on better animals. To establish pelt values, several thousand skins must be taken when prime and offered to the fur-manufacturing trade. Possibly the best matched bundles will be obtained by pooled or co-operative marketing. Better pelts undoubtedly will be produced as knowledge of selective mating progresses and management and feeding practices improve.

Chinchilla skins are more satisfactory for loose wraps, capes, jackets, neckpieces, and muffs than for fitted coats. The National Chinchilla Breeders' Association of America has drawn up a code of ethics to govern the transactions of its members.

### PELTING

Chinchilla fur becomes prime in December through February, although the time varies with the locality. Complete primeness of a pelt may be determined by blowing into the fur on the back of the neck

and along the spine. If the skin is prime, it will be a pale flesh color; if not, it will be blue.

Chinchillas may be killed for pelting by injecting nembutal or strychnine with a hypodermic needle into or near the heart. The carcass should be cold before pelting is started. There are various clamps and devices for holding the feet of the carcass at the different stages of pelting. The first incision should be made at the point of the lower jaw. It should be long enough to permit the entrance of an old umbrella stay or other slotted device as a guide for the knife in slitting the skin straight down the belly. Care is necessary at all times to keep grease, oil, and blood from soiling the fur. A liberal use of fine hardwood sawdust helps. The fingers should be used whenever possible to separate the skin from the carcass. A knife should be used cautiously at all other places.

The ears, eyelids, lips, and the skin of each leg above wrists and hocks should be left on the pelt. The skin of the legs is left protruding from the flesh side of the pelt. Care should be taken to keep the legs from touching the skin while the pelt is being dried. The pelt should be scraped gently yet firmly with the edge of a spoon or with a dull knife to remove excess fat. Sawdust absorbs the fat and makes the slippery pelt easier to handle. Sometimes only sawdust is used



FIGURE 3.—A chinchilla pelt stretched out and nailed to a small board.

in removing excess fat from the pelt. The skin should be placed, fur side down, on a small flat smooth board (fig. 3). It should be pulled by the nose forward slightly to straighten the fur and then nailed down with  $1\frac{1}{4}$ -inch wire brads, starting at the tip of the nose and working alternate sides gradually. For proper forming, the brads should be from three-fourths to 1 inch apart and one-sixteenth inch from the edge of the pelt. The pelt should be just nicely formed and not stretched, in order to obtain a full, dense fur. The pelt should be set aside to dry in a well-ventilated insect proof room, preferably at about 65° F. It should not be near a stove or in the sun. The pelt should be permanently marked with indelible pencil on the flesh side. The brads should be removed carefully so that the pelt will not be torn. Any trimming should be done from the flesh side and with a sharp knife or razor blade, never with scissors. The edge showing the nail holes need not be trimmed. The fur may be cleaned with the same material the animal has used for dusting itself.

These are but general suggestions for pelting chinchillas. Improved methods will be devised as chinchilla production grows. It might be well to take instructions on pelting from experienced breeders.